

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190
 200
 34867735.m MASGACQGCDBEEEEEALKLIVRLNNVQEGKQIETLLQLLEDILVFTYSRDRASKLFGKRVHVPPLLIVLD SYMRVASVQQGVWSLLCKLIEVCPCGTQSLQSLIGPQDGDGNDWEVLGIHLRKMLTVHHANVNLSIVGLKALDLLLDSGKITLLILDEECVDVFLLIFDAMHRYSANEEVQKLACKALHVLFERVSEEQLTE
 13385190.m MASGSCQGCEEDEE-TLKKLIVRLNNVQEGKQIETLVQILEDLLVFTYSEHASKLFGQKNIHVPPLLIVLD SYMRVASVQQGVWSLLCKLIEVCPCGTQSLQSLIGPQDGDGNDWEVLGIHLRKMLTVHHANVNLSIVGLKALDLLLDSGKITLLILDEESDIFMLIFDAMHSPANDEVQKLGCKALHVLFERVSEEQLTE
 LRRK2.h
 34857193.m
 LRRK1.h
 31204801.i
 24648474.f
 32563671.w
 lias_TGFBR
 AK110452.q

210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390
 400
 34867735.m FVENKDYMILLSTFRSKRDEETVHEVLCLLHSIAVTCNSNVEMVMSGNVR CYNIVVEAMKTFPTSENQEVSCS ELGHKLTLGNFFNILVLENEVHFVKAQYQFENAAQISALSCALL-NLEERSETQENSDED-E-KFWLEPCYKALMHRKRNKHQAEACAWNLNLLMYQNSKEKIGDDEDGHFPAAH
 13385190.m FVENKDYMILLSTFRSKRDEETVHEVLCLLHSIAVTCNSNVEMVMSGNVR CYNIVVEAMKTFPTSENQEVSCS ELGHKLTLGNFFNILVLENEVHFVKAQYQFENAAQISALSCALL-TETIFLNQDLEEKNNENQENDDEGEEDKLFWLEACYKALTWHRKRNKHQAEACAWNLNLLMYQNSKEKIGDDEDGHFPAAH
 LRRK2.h
 34857193.m
 LRRK1.h
 31204801.i
 24648474.f
 32563671.w
 lias_TGFBR
 AK110452.q

410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590
 600
 34867735.m REVMLSMMHSSKDVFQAAAHALSTLLEBQPLASIAINGGMACITKHKVSLVAFMSSILVLPSSMKLILAKGVLYNLELMQRMHAQVPEVAESGCKMLSHLFEGLNSPDLTVAAVIKILTVMRTHQTSLSVQLEALRAIHFVVPGVSESDRSRCOP-NVILRTQCFRTDIHKLVLAALNRFIGNPQIKRCGLK
 13385190.m REVMLSMMHSSSKEVQFQASANALSTLLEQNVN-PRKILLSKGIHLNVLELMQKHIHSPEVAESGCKMLNHLFEGLNTSLDMAAVVPKILTVMRHTSLPVQLEALRAIHFIVPGMPEESREDTEFHKLNVKQCFKNDIHKLVLAALNRFIGNPQIKRCGLK
 LRRK2.h
 34857193.m
 LRRK1.h
 31204801.i
 24648474.f
 32563671.w
 lias_TGFBR
 AK110452.q

610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790
 800
 34867735.m VISSFAHPDALEMISLHGAVDSVLHOMYPPDDEQICLGLHMGCLMTKKNFCIGTGHIAKILASTLQRFKDVAEVTGTTGLQTVLMSMDLSVSFSKLIVHYSFDVVMFHQMSSVLECKDQEFLNLCCKCFAKVAVDDELKSRMLERACDQNNSSIMVCCLLLGADANQAKGATSLIYQVEKSSPKLVELLINSG
 13385190.m VISSIVHFPADELMISLEGAMDSVLHOMYPPDDEQICLGLSLIGYLITKKNFTIGTGHIAKILVSLYRKFDAEVTGTTGLQTGCFQITLAILKLSASFSKLIVHYSFDLVIHQMSNIMEQDDQFLNLCCKCFAKVAVDYDYLKNVMBERACDQNNSSIMVCCLLLGADANQAKGSSLTCQVEKSSPKLVELLINSG
 LRRK2.h
 34857193.m MEEAG-EALCVKWSHKLFWVLDLNLIDDISCITEELDSLANSCLSSLPSIHWGLNLKLNLSNNHLG-ELPCV
 LRRK1.h
 31204801.i DYAIIKGENDIAFLLRHGAYPECSYLLSDPSKHLIRKYFTEASLPSS-YPGTALRVKWSHRLFWVLDLNLIDDISCITEELDSLANSCLSSLPSIHWGLNLKLNLSNNHLG-ELPGV
 24648474.f DILICGAARETAIJAAVRGFGFLDWVLTGENGNDNVIARAVEDQNSDEIYGSNVLEBARTQKSLPWVQHGRADDQDVALGQVNGDDEPIIICRLLAIAKHPD-DYKINRKLLAGQEA-ASTPEYGTAPLAFGVKGLLGSFTYSSLF PSTATMWNHSE-NCRIGLIRMAWSEAVLQCNRLRAH
 32563671.w VNLICGAARETAIJAAVRGHLDVVQS-LQHGANTIVAKPVEDHNDPKCEEIYGLSNVETABACKQRSLAMIDLLKGARDNGTAIGMAITCGDEAISLRLARRVHPDSDYQKINKKGLP-TPEVNVFLPSTSNS-YSAMPNNPTIIDWHSMGSSVQLSVRWPWMVGULLNPKLQSH
 lias_TGFBR
 AK110452.q

810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990
 1000
 34867735.m CREQDVTKALTIQKGDNTVISLLRRLADLANNISICLGGFCIGKLDPSWLGFPLFDKTSNLRQQTNAIASDARWVIRYQMKSAVEEGTAGSGDGNFSEDVLSKFDEWTIFIDSSMDSVFAQSDLDSEGESFLVKKNSN-SVSEVYRDLALRCSPNACRHSSLLGPVFDH-EDLRRKRLKILSSDESIRSS
 13385190.m SREQDVTKALTIQKGDNTVISLLRRLADLANNISICLGGFCIGKVEPSWLGFPLFDKTSNLRQQTNAIASDARWVIRYQMKSAVEEGTAGSGDGNFSEDVLSKFDEWTIFIDSSMDSVFAQSDLDSEGESFLVKKNSN-SVSEVYRDLALRCSPNACRHSSLLGPVFDH-EDLRRKRLKILSSDESIRSS
 LRRK2.h
 34857193.m QSSEDIICSLRVEDDISNLSLPPGFLHLKSLERLTASKN-YLERFEEN-ATNWIG-LRKLEELDLAONRLTELPVQFMHSFKSLTNLVRNSLKSFP-DPWSCLPKCCAKNA-LESPLDKMAVFWKHN-HLRDV
 LRRK1.h
 31204801.i QSSSEDIICSLRVEDDISNLSLPPGFLHLKSLERLTASKN-CLEXFEEN-ATNWIG-LRKLEELDLAONRLTELPVQFMHSFKSLTNLVRNSLKSFP-DPWSCLPKCCAKNA-LESPLDKMAVFWKHN-HLRDV
 24648474.f PKCHQALAAALTRDISHNLTTLPAEFLVSLRVLNAAQNKIERLPLPDEDAGQQGKRRGSAKPADYQCPVLEELYDQDNLELCVPAVLFR-IGQTYGCPVLDPEFLQDNQLTTPAAIFH-LPALSDLDWSNNKLQELPFEMWKAPK-LKEUNFVNFKLDPSPLEBLAAAAMHPYTG-ASFDGCTEALANRVTNLLPALSILDWSNNKLQELPFIDWRAPK-LREUNFVNFLLRDLP-QLSFEEPPQKRN-VTQQ
 32563671.w IRTTRSLAAITRVDLSDNLPNTFPSILQMPSLRSLSLNADNSIRKIRIP-TYYISTSDEHUNLRRNNOLECIAQFLS-SLPQLQOLWDSSNELSOLPEYIWLCPA-LKEUNASYNRLSTLPVARASGERERLNNSNNNFNTOSPTQESNPPIVDDPPNTSN
 lias_TGFBR
 AK110452.q

1010 1020 1030 1040 1050 1060 1070 1080 1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190
 1200
 34867735.m RLQSHTRQSDSSSLASERHITSLLDLSANEKRDIDALQKQCCLSHLEHJKTKEHONSLTSPQQLCETLKLTHDHEHMKFATFIPSMLKMPSPVHLLDASRNIDGPTVVDLPPVKCPSLQFN-LSYNQLSSIPNLDQVVEKLEQNLLEGNKISGICSPLSIKEKIIINLNSKNHPP
 13385190.m KLQSHMRHSDSISLLASERHITSLLDLSANEKRDIDALSQKCCLSHLEHJKTKEHONSLTSPQQLCETLKLTHDHEHMKFTSFPSYLLKMSCIANLDVSRNDIGPSVVLDPTVKCPTLKQFN-LSYNQLSFVPEPNLTDVVEKLEQNLLEGNKISGICSPRLKEKIIINLNSKNHIS
 LRRK2.h
 34857193.m DFSENSIKAVPLQVFQ-LDAPMFLRQLQNLALPPQKTCRQLKLLDLSRNQLG-KNEDGLKTKRISLFTTGRGRSGTET
 LRRK1.h
 31204801.i ELVRHHLIWALESVTEQELRLADARSDS-ALSOSSNLSNLLTETPLAPCLAYNLTRNLSYMSLMSGMHVTSYPAVLQQLDGHNETSCWPSLPRITAASDPLHLRGSGGGDTTPSNASTTSYQGTEMTTIVVKSSTISLSLTAVLKSVCCRHLRLLESRLTIVLADNLSLTRIQ
 24648474.f RLTTHRNLWSATLTDIDDMKQHEQDLDG-GKTAGVGSQDSSNLTANLFTSPALPCLAYNLTRNLSYMSLMSGMHVTSYPAVLQQLDGHNETSCWPSLPRITAASDPLHLRGSGGGDTTPSNASTTSYQGTEMTTIVVKSSTISLSLTAVLKSVCCRHLRLLESRLTIVLADNLSLTRIQ
 32563671.w PLRRQNVWQASINLSKVDDDSLPDFPVT-SENLTITNLSEFNKHTPFFCLACTCRLLIIMNNSMSMSTLSPMACVPAHLRTLDSLYNKIQESFIAASPLHVCHAVPP-TTSNGSMLPKRRNSPARQHRSRSKSAVRSRSLSVRHLALIDPQKEEBCSVKHKR
 lias_TGFBR
 AK110452.q

1400 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320 1330 1340 1350 1360 1370 1380 1390
 34867735.m SLPEDFLEACPKEFSARINPFAVHTVSLPTGFHIVC FVKIPPEIIGRNLIA-LDVSNBDRSPFNEWKRSKRWDLPLDGLLNFDPFRIHGCRAKDITIRPQLRLRKAVPYNRMKLM
 LRRK2.h SLSENFLEACPKEFSARINPFAVHTVSLPTGFHIVC FVKIPPEIIGRNLIA-LDVSNBDRSPFNEWKRSKRWDLPLDGLLNFDPFRIHGCRAKDITIRPQLRLRKAVPYNRMKLM
 34857193.m ASVIEFFPAFSEIISVLCKNDN HLDAPPVSPVCLLNLSLPIAGNNPGCGRDEPPPECGIGGNWODIEDLIGN -VPAPRVERKEGPKATLSFLRAQLRKAEKCKIMKMI
 LRRK1.h NNCNLCACTC AASVIEFFPAFSEIISVLCKNDN HLDAPPVSPVCLLNLSLPIAGNNPGCGRDEPPPECGIGGNWODIEDLIGN -VPAPRVERKEGPKATLSFLRAQLRKAEKCKIMKMI
 31204801.i LSTDDATTFLFNESEDADWSVVGCVNRSKVNPMLNSMIDMNN CIKEIPASLHLNLNLSLPIAGNNPGCGRDEPPPECGIGGNWODIEDLIGN -VPAPRVERKEGPKATLSFLRAQLRKAEKCKIMKMI
 24648474.f LSTDDATTFLFNESEDADWSVVGCVNRSKVNPMLNSMIDMNN CIKEIPASLHLNLNLSLPIAGNNPGCGRDEPPPECGIGGNWODIEDLIGN -VPAPRVERKEGPKATLSFLRAQLRKAEKCKIMKMI
 32563671.w DSLEWLKTLQLAGNRLRSISVINAASKVLPALNVMPIDN RLLQAPPDVARTLIFSLNLSLPIAGNNPGCGRDEPPPECGIGGNWODIEDLIGN -VPAPRVERKEGPKATLSFLRAQLRKAEKCKIMKMI
 lias_TGFBR AK110452.q MKNCVBLSELSEKPSBVEKGNSFDLHSFKNVKVQLRAQTDR -VQAFVQRSKRKESEFGSYRLGSSKTHPERAESPL

 1600 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560 1570 1580 1590
 34867735.m IVCNTGSKTTLLQFMKMKSSLELGMOCTVGDYDVRDWIQLRGKRRKDL VLNIVDFAGREEFYSTHIFNTORALYLVVDISKSCAVEDANKPLFNKARAASSVILVCHLDVSDEQKORKA-CIGKIKBEGLKNRKCPTTDRDYIFVNVA
 13385190.m LRRK2.h IVCNTGSKTTLLQFMKMKSSLELGMOCTVGDYDVRDWIQLRGKRRKDL VLNIVDFAGREEFYSTHIFNTORALYLVVDISKSCAVEDANKPLFNKARAASSVILVCHLDVSDEQKORKA-CMSKIKBEGLKNRKCPTTDRDYIFVNVA
 34857193.m LVGPPRQKSKTLEBIDOTGKAPQPAHSEITVTRITKWELORPGASAKVES VEFNWDIIGGPASMAVWNCCFTDKALYVVVNLALEEAVANQFLLNNEAKANAALVLCVNDLIEAKFRVE RIATPRAYVLAICRSPSGSRATGFPDTFKHLHEI
 LRRK1.h IVGPPRQKSKTLEBIDOTGKAPQPAHSEITVTRITKWELORPGASAKVES VEFNWDIIGGPASMAVWNCCFTDKALYVVVNLALEEAVANQFLLNNEAKANAALVLCVNDLIEAKFRVE RIATPRAYVLAICRSPSGSRATGFPDTFKHLHEI
 31204801.i VVGVOGTGKTSLEIQLRQGAGSGSSSSHERSASENHWAKRGMGHARSTSRSRHHSASSANISTVGVDIGTWICEKRKRAPGSHGEVVFRTI DEGQCKEYYATHOYFLSKSLVLYLVRISDCHKGAELQFLGNIQARAANSVILVCTHDAVGTEFLPAK KAEQDQQLREKFIATPDAEKICLFRVDS-IEI
 24648474.f VVGVOGTGKTSLEIQLRQGAGSGSSSSHERSASENHWAKRGMGHARSTSRSRHHSASSANISTVGVDIGTWICEKRKRAPGSHGEVVFRTI DEGQCKEYYATHOYFLSKSLVLYLVRISDCHKGAELQFLGNIQARAANSVILVCTHDAVGTEFLPAK KAEQDQQLREKFIATPDAEKICLFRVDS-IEI
 32563671.w ILGSQGVQSKVINDAPCKEAVQKRQPIBTGTVIRGAEEKFRAKPSKQEDKNA GGGVSPSGGGLGAGGCNHSGLCPFDHVPROHAGASFLLQSIDSFTAWPFTFKETLFKRIKRTTG
 lias_TGFBR AK110452.q GARTSRIVKSpDILVPPID-ESLRLTNISPSPSSPLTAFSSPLSTGAAGSSGGVG-

 1800 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790
 34867735.m PEESDALAKRKDINESLN- FKLIRDQVVGQIIPDGYVLEKHLISERKAVP-TEFFPVNKRKLLDVLVPHQOL DENILPPLAVEFLNCSVLEHFOPDAPQL DLYFVDEPKLCKVMAO ITTVKVDGCKLKHKTTSRDPVKEFLSKKKRFPKNYMAQYFKDLEKFOIALPIG
 13385190.m LRRK2.h PEESDALAKRKDINESLN- FKLIRDQVVGQIIPDGYVLEKHLISERKAVP-IEFFPVNKRKLLDVLVPHQOL DENILPPLAVEFLNCSVLEHFOPDAPQL DLYFVDEPKLCKVMAO DVSSIFGLYIRDILT.VKVGECKHKKGKLIISRDRDVEFLSKKKRFPKNYMAQYFKDLEKFOIALPIG
 34857193.m SCKNLEQQFSLRPLPHVTNCNMKDVGSTIGCQKDGRLPSPSYLSQLEAVLAEQQRSSLEDQVQYLTDRQLELVETPQND IKRYEDLQSAIFLFLHCTCFLHLLFDTSHGLRNLYFLDFPLSEQLQR IFNIKGSRSVAKNGVIRAEEDRMLLVLGTF-TQQTEEQQYQFLAKFEIALPVA
 LRRK1.h SCKSLEQEGCLRLPHTCNSMDVGSTIGCQKDGRLPSPSYLSQLEAVLAEQQRSSLEDQVQYLTDRQLELVETPQND IKRYEDLQSAIFLFLHCTCFLHLLFDTSHGLRNLYFLDFPLSEQLQR IFNIKGSRSVAKNGVIRAEEDRMLLVLGTF-TQQTEEQQYQFLAKFEIALPVA
 31204801.i SCRTHNKKLALLNHYDTAMQLRSPGSKEM- PMLLKGKPSYALBDINVIACNLRAAGRDVFV DQEYQKRVIEQMRLLHNYKSFRCAAQLCATTACHENVLLHYDDAT LRDLYFLDFQLCDMLAH- VVTVREINFAPTGVKMLDQMLFLRFSVQVQGNGNRSYIVSLNKFEVALTWD
 24648474.f SCRTHNKKLALLNHYDTAMQLRSPGSKEM- PMLLKGKPSYALBDINVIACNLRAAGRDVFV DQEYQKRVIEQMRLLHNYKSFRCAAQLCATTACHENVLLHYDDAT LRDLYFLDFQLCDMLAH- VVTVREINFAPTGVKMLDQMLFLRFSVQVQGNGNRSYIVSLNKFEVALTWD
 32563671.w TSNR-DVRAALLNTIVRTAKEVR- MGKERAEMQIPSYIALMKVTKELGVFREKQGKQPAVMVCEAYRFRVKKRIMISKPGFRFDPDIFYAKCFLDCSBLVRFEDAT LRDLYFLDFQLCDMLAH- VVILRSEPNLFACLLSTDABNPHTRFSKSCALLMLKTQLDDLHNRELALATQ
 lias_TGFBR AK110452.q GEVDPRPSLIAACFCYACENLISLYGHSLIPPLFDKMKTDIISFLVFAYN-

 2000 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990
 34867735.m EYEVLPSSPSDHRPVIELD- HCENSEITLRLVBMWPFPCFGRSLINRLEIS PFMLSLRERALRNRMYWRQGJYLW
 13385190.m LRRK2.h EYEVLPSSPSDHRPVIELD- HCENSEITLRLVBMWPFPCFGRSLINRLEIS PYMLSCP
 34857193.m NDSSLLPHLPSKPGLDTHS-M- RHMANTILRVERKMSBVPVGFQRIARMILS LAEMLQLFENKKNTSKSRNRKVITYSFTGNQRNRCSTFRVRNNTIYQWEG-LLVTFD
 LRRK1.h NDSSLLPHLPSKPGLDTHG-M- RHMANTILRVERKMSBVPVGFQRIARMILS RHMANTILRVERKMSBVPVGFQRIARMILS LAEMLQLFENKKNTSKSRNRKVITYSFTGNQRNRCSTFRVRNNTIYQWEG-LLVTFD
 31204801.i CDVQMVHPHD- RSISSLRLLMMPSGCFNSRLITRVLADDQVVEAVRLGLYFLPKDLDLQNPALBEETPALAAHWAVNQTGLALHFGESTVFKMRSEIS- VTCPTSPYRNPMRFKLDQGWCDIDLTASSILEIHF
 24648474.f SRTLIPSLPSQEAATPNNSG- TVKLSQGLRLLIMMTWPFPSGFNSRLITRILADEQIIEAIRGVYMASQDYADF- LRTSLEQDTQWNLQGTLALYLYGP- ILIFKIWEVPFQKTERTPQFRDGNRFKLDQGIWSDVNLSSSILEVYF
 32563671.w PROLIPSLPSQEAATPNNSG- TQALASHYHQDQTTRILLIPLRKP-TPG- QPSER
 lias_TGFBR AK110452.q QALASHYHQDQTTRILLIPLRKP-TPG-

 2200 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100 2110 2120 2130 2140 2150 2160 2170 2180 2190
 34867735.m SPEAYCLVGSSEVLDSRPESLKLTIVPSCRKGCLIPGRVVDHEDSMEBFPCOLL-EIDICCECTLKKALYSFNDGEHHQKILLDDLMK KAEGDLPINPDQF
 13385190.m LRRK2.h GCLLQDVVDDHDSLMECAFPCQLL-EIDICCECTLKKALYSFNDGEHHQKILLDDLMK KAEGDLPINPDQF
 34857193.m GGYLSVSESSDVNWKKKKSGGIKIVCQKSEMRDFSAMAFITDHVNSLIDQWFPALT- ATESDCPFLMEQVPCPVCEASWAQHADNESE- SVQYFMDMEDCVLTAIEGNEISCPRP
 LRRK1.h GGYLSVSESSDVNWKKKKSGGIKIVCQKSEMRDFSAMAFITDHVNSLIDQWFPALT- ATESDCPFLMEQVPCPVCEASWAQHADNESE- RHMANTILRVERKMSBVPVGFQRIARMILS DQYFMDMEDCVLTAIEGNEISCPRP
 31204801.i PCSALRVQPATPDEARPPAHEITENVQCLTQLALLTVDHDLLEDWPYPLGTRFVHSECDLVSRLVLCPCQVRDAERNGRSRTSSASRRSQDD SANAPADTMLRHLRAMDAMKNSDFRQEASMLHALHPCIVLILISIPLCFAELAPLDSLNLVISENAKDSS
 24648474.f PLYEVNISQVATDNEQ- LLAETRPHMSQVAKLLALTVDHDLLEDWPYPLGTRFVHSECDLVSRLVLCPCQVRDAERNGRSRTSSASRRSQDD SANAPADTMLRHLRAMDAMKNSDFRQEASMLHALHPCIVLILISIPLCFAELAPLDSLNLVISENAKDSS
 32563671.w PIVEMVNSLSIASASQHGKRLMKTDVEGRSRLLAMISDUDLILEDWYPALGTRFVHSECDLVSRLVLCPCQVRDAERNGRSRTSSASRRSQDD SANAPADTMLRHLRAMDAMKNSDFRQEASMLHALHPCIVLILISIPLCFAELAPLDSLNLVISENAKDSS
 lias_TGFBR LIPRVEDVNGLDCSSEDPLNVTNPNGDGSDSAVSEYIYLFLDILVWQQLYLYSPATGPICWPDPGELPITSSSHMKSGRTTGDISKCRGGV
 AK110452.q LIPRVEDVNGLDCSSEDPLNVTNPNGDGSDSAVSEYIYLFLDILVWQQLYLYSPATGPICWPDPGELPITSSSHMKSGRTTGDISKCRGGV

 2400 2210 2220 2230 2240 2250 2260 2270 2280 2290 2300 2310 2320 2330 2340 2350 2360 2370 2380 2390
 34867735.m RLTIPIQIAFDLILADLPRNIMLNNDBEFFEAPEFLLL GDGSFGSSVRAA- YECEEVAVQFNKHTSLRLRQELVLCIHLHPPLIALLAAGTRPRMLVMEALSKSISLPLQOD
 13385190.m LRRK2.h RLTIPIQIAFDLILADLPRNIMLNNDBEFFEAPEFLLDPCFVCIHLYPSSDYISRHYMRINTIVQTFACKRMRVIVHGADNGDSFGSSVYRAA- YECEEVAVQFNKHTSLRLRQELVLCIHLHPPLIALLAAGTRPRMLVMEALSKSISLPLQOD
 34857193.m DLPVPLPELVEPLFMTDFPARLPLENSKLEHTEGENSILG QGGSGTIVYQACYQQPQVAVKRFHKKFKN- SANAPADTMLRHLRAMDAMKNSDFRQEASMLHALHPCIVLILISIPLCFAELAPLDSLNLVISENAKDSS
 LRRK1.h DLPVPLPELVEPLFMTDFPARLPLENSKLEHTEGENSILG QGGSGTIVYQACYQQPQVAVKRFHKKFKN- SANAPADTMLRHLRAMDAMKNSDFRQEASMLHALHPCIVLILISIPLCFAELAPLDSLNLVISENAKDSS
 31204801.i SYSWMMPCILAAVDKRTVACPVHGEIETSRITPDVNFMD -LHDYLLIRSSDINRPLLGRGAFGFVFK- FANVPAFTMLRHLRAMDAMKNSDFRQEASMLHALHPCIVLILISIPLCFAELAPLDSLNLVISENAKDSS
 24648474.f CYAWMIPCILSVNQSKISCPVHLEQSAQALAPDVIFAD IDPKHTIPSECIKGSLLGRGAFGFVFKANCK- SALMAFKVAVGKWDRLQHSCAKYCTARQELAVLTLKHPNIVLVECIPKPLALVIELAFLPGLDRLRHYRSG-
 32563671.w VHCFVIPSCLMAGREYNNWRCPSHGGLHRELAPDITVfad INNALTIHFDLQLRSLRMLGRGAFGFVFRATVQNGELCEVACKMLEPVDPGPGGRPSALAAKYAADKWRD-SMEFACRAYCTSROLSSLRMLGRGAFGFVFK- EDPSLDRPFIISGTTLKLIDDMTTSQS
 lias_TGFBR AK110452.q GSSCPHFRFASVENNPIVPSAISLSCLLDMRDLINCREEWVLGHR

2600

34867735.m KASPTTRIDQHRTALHVADEIYRLHSAMIYYRLDKPENVLLFTL YPNAAIIAKIAIDYIAQYCCRMG-IKSECTCFRAPEVAR CNVIEINQOADIVSFCOLLEHDWITGNSRIMEGLRPNEFDELAIQGKLPDPFVKKEYGCAPWP-MVERLIKCKLKENPCEPPTSAQVFIDLNSAELICLMRBFIFIKDHT
13385190.m WYLHSAMIYYRLDKPENVLLFTL YPNAAIIAKIAIDYIAQYCCRMG-IKSECTCFRAPEVAR CNVIEINQOADIVSFCOLLEHDWITGNSRIMEGLRPNEFDELAIQGKLPDPFVKKEYGCAPWP-MVERLIKCKLKENPCEPPTSAQVFIDLNSAELICLMRBFIFIKDHT
LRRK2.h KASPTTRIDQHRTALHVADEIYRLHSAMIYYRLDKPENVLLFTL YPNAAIIAKIAIDYIAQYCCRMG-IKSECTCFRAPEVAR CNVIEINQOADIVSFCOLLEHDWITGNSRIMEGLRPNEFDELAIQGKLPDPFVKKEYGCAPWP-MVERLIKCKLKENPCEPPTSAQVFIDLNSAELICLMRBFIFIKDHT
34857193.m FMPIGHMLTQKIAKYQIASGAIYHKKNNIIFCOLKSDPNILVSL SVKELINIKLSDVYISIQSQSFHEC-AIGVETGTYQAPAEPR PRIVYDEKDQFMSYCMVLYELLSQRPALEG-BHQLOQIVKKLSKGDIQVFLQGQ-EVQFYRLQALMMECDNDTKECPGPAJALSVVSOMKDFPTATFMTMMMPGCKQSS
LRRK1.h FIPIGHMLTQKIAKYQIASGAIYHKKNNIIFCOLKSDPNILVSL DVKEHNINKLSDVYISIQSQSFHEC-AIGVETGTYQAPAEPR PRIVYDEKDQFMSYCMVLYELLSQRPALEG-BHQLOQIVKKLSKGDIQVFLQGQ-EVQFYRLQALMMECDNDTKECPGPAJALSVVSOMKDFPTATFMTMMMPGCKQSS
31204801.i -ARIGPGYHMLTQKIAKYQIASGAIYHKKNNIIFCOLKSDPNILVSL DVKEHNINKLSDVYISIQSQSFHEC-AIGVETGTYQAPAEPR PRIVYDEKDQFMSYCMVLYELLSQRPALEG-BHQLOQIVKKLSKGDIQVFLQGQ-EVQFYRLQALMMECDNDTKECPGPAJALSVVSOMKDFPTATFMTMMMPGCKQSS
24648474.f -AHMGPHPTFQTLVQLQARAYEYLHRRRIIYRLDKPENVLVLPQPHTEDSPRNLVHIIKIAIDYISQQTAPSCKAKFCCTECFMAPEMIRNGEINGEEYIEKWDQFESPFMELYEIIRLQPFEG
32563671.w -TRISLGVIKESAVQVARADYIYHSAITYRQFPAF-FSPQIDVLLKDPDYSVSLPSQAKFCCTECFMAPEMIRNGEINGEEYIEKWDQFESPFMELYEIIRLQPFEG
lias_TGFBR GSCLPVLQVTHIARTIVLQESTIKGRGFGE-EWWRCKRGEEVAKVIIKSSR-PERSWERAEAYQ
AK110452.q IVRYLCHYPIYAKGWEHLIDSYLQDQBLVCS-SALDPHESTLAQFASPTVQRLSKVILLKSNYLWPEKYL

2800

34867735.m VECTAAINDNSK-RATE-LGGC-NTEKGQSLDLDNTERYSYEEVTDSPHLCALVDAEKEBSWVC-TQSGALIVVNAEDETRHRHLDKMDTSVTCYCNFAKOSKOSHFLVGTDAG-NLMIFEDKTICKKAAPLKHLHGDSL
13385190.m VECMVAINLNSK-SATL-LGGC-NEKGQSLDLDNTERYSYEEVADSPHLCALVDAEKEBSWVC-TQSGALIVVNAEDETRHRHLDKMDTSVTCYCNFAKOSKOSHFLVGTDAG-NLMIFEDKTICKKAAPLKHLHGDSL
LRRK2.h VECMVAINLNSK-NASTI-LGGC-HDRGQSLDLDNTERYSYEEVADSPHLCALVDAEKEBSWVC-TQSGALIVVNAEDETRHRHLDKMDTSVTCYCNFAKOSKOSHFLVGTDAG-KLMIFEDKTICKKAAPLKHLHGDSL
34857193.m FFSSSQEYIVVFWDGKEESRNYTVVNTKEKLLVEQRMTCPGMKLSCQLKVQSSVWLATEDQKIIYIYSLKGMCPMSMQQALDTPAVVTCPFAVEVVIKKNFSLVLAGADLELVAVFSMARGTPKESCSYLCSHTA
LRRK1.h FFSSSQEYIVVFWDGKEESRNYTVVNTKEKLLVEQRMTCPGMKLSCQLKVQSSVWLATEDQKIIYIYSLKGMCPMSMQQALDTPAVVTCPFAVEVVIKKNFSLVLAGADLELVAVFSMARGTPKESCSYLCSHTA
31204801.i VMDGATCAIASADGEETGVVSVGYEL-LPCSNRIDLQGGSAGKWWYHRIICPQVGGGGAGTTGTSQQAGGTGNGPQASGSQTTPHIETKTTACAVESAVVIGDAEGNIYAFNAADC
24648474.f IVCVQEVSQSLVGMGDDER-CGLEL-LPSFGSRIDILDQCSPS-GSSLQ CNSISCSQPOQVAPPKTPENGANSRARSQRFKINMCLCCLVGAEAIWMGDVSGNLHAYSTS
32563671.w PTQDMAVGIIDIDEIDDPDD-FEAQDLSGR-EMVVMGCTQYGVQDKPELHRQKYSVVRDWSNDECQVIVVGQISLHETGHLQPLSLSNLICAP-ELISNDVLLISDK
lias_TGFBR VEGNKLKLST-ASGLAHLEMEIVTGQKPAHARDKSKNLLVVKNNPCCIAADGLAVRSDSATDIDTAPNER-VGTTKRYMAPEVLDODS
AK110452.q HKVALPSENIA-VIYSEFRSELLLQVRLNCNPYFVTVIAISLQPLCQVIELMDLGDFAFIHKEPSPAFQTRSLALITGALKFLHTCNPPILHLDKTPN-IMKHFEFKRADYIANG
3000

34867735.m MCLPESINSSERHITWGCGCTKIFPSNDFTIQKLIETRTNQLFs-YEAFSDNSIIAVAVDTALYIYAKKNSPVENIKSCDAQDRQATCVNSENTALPPSCFVKLAGCTRGRSVKLSADRTVNEHILYASREBV
13385190.m MCLPESINSSERHITWGCGCTKIFPSNDFTIQKLIETRTNQLFs-YAAYKSDNSIIHALAVDTALYIYAKKNSPVENIKSCDAQDRQATCVNSENTALPPSCFVKLAGCTRGRSVKLSADRTVNEHILYASREBV
LRRK2.h MCLPESINSSERHITWGCGCTKIFPSNDFTIQKLIETRTNQLFs-YAAYKSDNSIIHALAVDTALYIYAKKNSPVENIKSCDAQDRQATCVNSENTALPPSCFVKLAGCTRGRSVKLSADRTVNEHILYASREBV
34857193.m VCSSDCRGEEVCLDDKGNSLWMYASATYQLCARYFCGDPSPRLDTFSVQSPVSEPIR-HITTSKEPEEEC
LRRK1.h VCSSDCRGEEVCLDDKGNSLWMYASATYQLCARYFCGDPSPRLDTFSVQSPVSEPIR-HITTSKEPEEEC
31204801.i TALNHSEDECILWGERDDAISVRSNRSHVSGQHHLTIFPAVL
24648474.f CSVVVVG-ITELCGEIACKINVFPIENGVSQHQLCHSEEPN
32563671.w TFLDNGS-TRQIAGHSRPIHHTASNDSFSSYLYLPDDK
lias_TGFBR PVEWREIARCSISGGIHEDYOLPYDLPVSD
AK110452.q RHLQLEKSDNCIILG-VEILMGEAATKTDIFAYGIVLWELLFWG-DPYFDHTWMSQIYDVKACIIPVPPDSRCLIPF-
3010 3020 3030 3040 3050 3060 3070 3080 3090 3100 3110

34867735.m FCDSKLNFQCFGK-PSLKNMIVLGYKRQCTEGTQEKIQSCLS-TWDLNLPHEVQNLKEHIEVTRTELADKMRKTSVE
13385190.m FCDSVRAMATAQL-GSLKNMIVLGYKRQCTEGTQEKIQSCLS-TWDLNLPHEVQNLKEHIEVTRTELADKMRKTSVE
LRRK2.h FCNSVRVMMTAQL-GSLKNMIVLGYKRQCTEGTQEKIQSCLS-TWDLNLPHEVQNLKEHIEVTRTELADKMRKTSVE
34857193.m HLQAVKVAQDLDLWVRRHCDLIVVGLKEKDSAGCRGVIAVLA
LRRK1.h HLQAVKVAQDLDLWVRRHCDLIVVGLKEKDSAGCRGVIAVLA
31204801.i VEEDVRCLVVVPPVTAQDESQGACTTPIVITIGCYRSIETERYTDVTVGPs-TASAGRIGLAATTPTAQDKRLKEALLRDSNIMHALINSAEHW
24648474.f VENIKLKLST-KDNVPLATIGRIVRSLSIRYVDSAESST-KSSA-VSTPTHG-AAKSVPPADVDNHHICLIPAKHWT
32563671.w HEGDITPQICILEEPSREENTRQKATLSTASSESGLGWV
lias_TGFBR QQEQIKM-
AK110452.q LPRCIRLDSRTA